

Results: The mechanism of injury was either due to a rugby tackle or fall from a bicycle. The majority of our cohort was male 86% with mean age 38 at time of surgery. All patients received physiotherapy sessions and been followed for 3–6 months. Post-operatively there were no significant difference in mean CC between operated and normal contralateral side. (12.2 vs 11.9 mm) ($P < 0.5$). The median of quick DASH and ASES scores were 15.9 & 79.99 respectively. All the patients were satisfied with no complications recorded.

Conclusions: Arthroscopic dog bone tight rope fixation of the ACJ is showing significant promise with minimal scarring and promising functional outcomes, good radiological outcomes, short post-operative stays and a low rate of complications.

0727: THE RELATIONSHIP BETWEEN THE NUMBER OF MODULARITIES AND SERUM IONS ACROSS DIFFERENT DESIGNS OF METAL ON METAL HIP ARTHROPLASTY

Samer Mahmoud⁴, Salam Ismael^{*1}, Ibrahim Malek³, D. woodnut³, Alun Jones³, Steve Jones². ¹Royal National Orthopaedic Hospital, London, UK; ²University Hospital of Wales, Cardiff, UK; ³Morrison Hospital, Swansea, UK; ⁴St George Hospital, London, UK.

Introduction: To assess the relationship between serum ion levels and modularity across different metal on metal (MOM) arthroplasty designs.

Methods: A cohort of 616 metal on metal hip replacement patients with similar bearing materials divided based on modularity design (number of articulating surfaces) into 4 groups: resurfacing BHR, Midhead replacements BMHR, Non-cemented stem MOM Hip replacement and the R3[®] with 3 bearing surfaces (115, 108, 355 and 38 patients respectively). Serum Cobalt and Chromium levels were assessed for each group and multivariate analysis used to create a regression model.

Results: Mean time between the procedures and the blood results for the BHR, BMHR, non-cemented stem THR and R3 groups were 40, 35.5, 41.7 and 36.6 months respectively. After adjusting for other potential confounders like head size and gender there was liner relationship between number of articulations and S. Cobalt with positive coefficient values started from 0.25 in BMHR to 0.4 in R3 (P value < 0.000 ; $R^2 = 11.65$). Gender is a positive influence factor, which increases relationship linearity across all designs (P value < 0.000 ; $R^2 = 13$). S. Chromium did not fit the regression model as S. cobalt.

Conclusions: There is statistically significant positive proportional relationship between increased modularity of MOM hip implants and S. Cobalt accumulation in patients' blood samples.

0731: GETTING TO GRIPS WITH THE BEST PRACTICE TARIFF FOR NECK OF FEMUR FRACTURES, EXPERIENCES FROM A MAJOR TRAUMA CENTRE: A COMPLETED AUDIT LOOP

Iain Rankin^{*}, Amy Bibby, Reza Jenabzadeh, Dylan Griffiths, Rajarshi Bhattacharya. Department of Trauma and Orthopaedics, St Mary's Hospital, Imperial College Healthcare NHS Trust, London, UK.

Introduction: The Best Practice Tariff (BPT) introduced in 2010 aims to financially incentivise hospitals to optimize management of patients with neck of femur (NOF) fractures, utilizing a multidisciplinary approach against set criteria. Major Trauma Centres face challenges in the prioritisation of major trauma patients against fractured NOF patients. This audit examined compliance at a regional Major Trauma Centre, managing acute admissions in conjunction with transfers from a second site within the same trust, prior to and following implementation of a NOF Action Group.

Methods: A retrospective audit of our compliance to BPT was conducted for the months of April - December 2012, repeated January - September 2013 following implementation of a NOF Action Group aimed to improve workflow.

Results: 237 patients in 2012 and 236 patients in 2013 were eligible for BPT. Implementation of a NOF Action Group improved outcomes: BPT in all criteria increased from 46.8% to 71.2%; ($p < 0.001$), with the most notable improvement in the rates for time to theatre < 36 hours - 57.6% to 80.5% ($p < 0.001$). The financial implications were an estimated additional £77,235 for the trust.

Conclusions: Implementation of a NOF Action Group improves compliance with BPT in a Major Trauma Centre, despite the challenges faced.

0739: THE ROLE OF EXOGEN IN NON-UNIONS, DOES IT SHOW ANY CLINICAL BENEFIT IN A LARGE DISTRICT GENERAL HOSPITAL?

Nader Ibrahim^{*}, Devendra Mahadevan, Ramanathan Natarajan, James Rudd, William Groom. Northampton General Hospital, Northampton, UK.

Introduction: Exogen is a portable medical device which utilises low frequency pulsed ultrasound to stimulate bone remodelling at the molecular level. It is used in cases where bone union is delayed. Union success rates are published to be as high as 86% with a median healing time of 17 weeks.

Methods: We evaluated the relative outcomes of Exogen use in a large district general over a period of 4 years on 18 patients (25–76 years old, 13 males: 7 females) displaying non-union of varying anatomical locations and severity. We analysed the timescale from initiation of Exogen to radiological union, if achieved, and the need for alternative methods of bone remodelling.

Results: Primary results indicate that the success rates were not reproducible within our institution. 69% of patients displayed radiological union after an average of 220 days (range 70–455 days). 25% of patients' required supplemental therapy after a trial and failure of Exogen.

Conclusions: This data indicates the importance of auditing this treatment modality and maximising its clinical effectiveness. Guidance published by NICE in January 2013 advocates use of exogen in long bone delayed unions. The manufactures offer a "money back guarantee" for non-unions, equating to a potential saving of £10,250 in our study.

0746: FUNCTIONAL OUTCOME FOLLOWING PRIMARY TOTAL KNEE ARTHROPLASTY CANNOT BE PREDICTED USING THE INITIAL POST-OPERATIVE RADIOGRAPH

Quen Tang^{*}, Panagiotis Gikas, Philippa Tyler, Rikin Hargunani, Robin Pollock, Jonathan Miles. Institute of Orthopaedics and Musculoskeletal Science, UCL Adult Hip and Knee Reconstruction Unit, Royal National Orthopaedic Hospital, Stanmore, London, UK.

Introduction: Obtaining standardised post-operative radiographs following total knee arthroplasty (TKA) is common practice. Little is known regarding how measurements taken from the initial post-operative radiograph directly correlates to functional outcome. Our aims were to investigate whether patient reported functional outcome at one year following TKA can be predicted by measurements taken from the initial standardised post-operative radiographs.

Methods: The initial post-operative radiograph for 110 primary TKAs were reviewed retrospectively. Femoral and tibial component alignment were measured by two independent consultant radiologists. Functional outcome was assessed by the Oxford Knee Score (OKS) pre-operatively and one year post-operatively. Correlation was determined by Pearson correlation analysis.

Results: The reliability of radiographic measurements between the observers was very good to excellent (Intra-class correlation coefficient ranged from 0.70 to 0.85). There was no significant correlation ($p = 0.05$) between the radiographic measurements with the one year post-operative OKS nor was there significant correlation with the difference in pre-operative and post-operative scores (Pearson Correlation Coefficient ranged from -0.18 to 0.39).

Conclusions: The initial post-operative radiograph following TKR although a useful tool in certain circumstances to assess workmanship and provides immediate feedback for the operating surgeon, it cannot be used as a tool to reliably predict functional outcome at one year.

0826: CONGENITAL TALIPES EQUINOVARUS 'CLUBFOOT' IN ZAMBIA: A QUALITATIVE STUDY ON THE INFLUENCES ON TREATMENT-SEEKING BEHAVIOUR AT BEIT CURE HOSPITAL, ZAMBIA

Lucy Elliott^{*}. Beit Cure Hospital, Lusaka, Zambia.

Introduction: The behavioural trends of guardians of children with congenital talipes equinovarus (CTEV) were analysed at Beit Cure Hospital, Lusaka, Zambia, in order to extract negatively influencing barriers and positively influencing drivers to seeking corrective treatment for clubfoot.

Methods: Seventeen participants (guardians of patients aged six weeks to eighteen years) were interviewed between August and October 2013, using informal, open-ended interviewing techniques. This study is a